

Patent Abstracts of Japan

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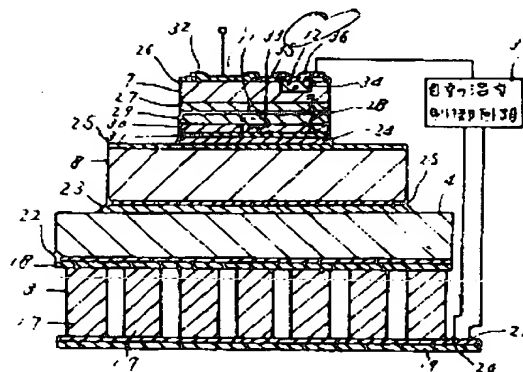
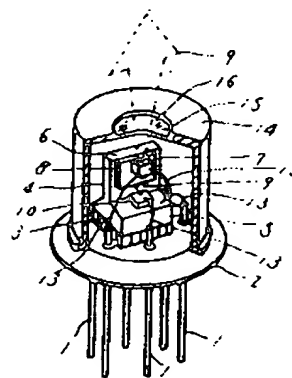
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APPLICATION NUMBER : 58123225

APPLICANT : HITACHI LTD;

INVENTOR : SAWAI MASAOKI;

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TITLE : LIGHT EMITTING ELEMENT



ABSTRACT : PURPOSE: To enable high-accuracy detection of the temperature of the semiconductor laser element by providing the P-N junction laser element consisting of the compound semiconductor and comprising the resonator performing laser oscillation.

CONSTITUTION: In the center of a main plane of the stem 2, a thermoelectric cooling element 3 is fixed, on which the metal supporting plate (a heat sink) 4 for heat dissipation which is made of Cu is fixed. The laser chip 7 emits the laser beam 9 upward and downward. On the main plane of a base 5 of the heat sink 4, the light accepting element 10 for detecting the laser beam 9 going downward and detecting the intensity of the laser beam is fixed. The main plane of the base 5 is inclined to incline the light accepting plane in order to prevent the laser beam reflected by the light accepting plane from going out through the upper window which will be described later. Also, the laser chip 7 has the structure in which the semiconductor laser part (main element part) 11 for emitting the laser beam 9 and the temperature detecting element part 12 for detecting temperature of said part 11 are formed to be monolithic.

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